

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended) A vascular occlusion coil deployment system for use in placing a coil at a preselected site within a vessel comprising:

an elongated flexible positioning member having a lumen extending therethrough and having proximal and distal ends;

an embolic coil;

an elongated flexible delivery member being slidably positioned within the lumen of the positioning member and having proximal and distal ends;

a heating element mounted on the distal end of the delivery member;

a non-optical energy transmission conductor extending through the lumen of the positioning member and extending from the proximal end to the distal end of the delivery member, said energy transmission conductor being coupled to said heating element; and

a non-metallic heat responsive coupling member coupled to the heating element and coupled to the embolic coil by a hot melt adhesive bond, said heat responsive coupling member being a biocompatible hot melt adhesive that exhibits the characteristic of, upon being heated, releasing the embolic coil at the preselected site.

2. (original) A vascular occlusion coil deployment system as defined in claim 1, wherein said heating element is an electrically heated coil.

3. (currently amended) A vascular occlusion coil deployment system as defined in claim 2, wherein the yield strength of said hot melt adhesive ~~heat responsive coupling member~~ is reduced when heated.

4. (cancelled)

5. (currently amended) A vascular occlusion coil deployment system as defined in claim 1, wherein the yield strength of said hot melt adhesive of the heat responsive coupling member is reduced at least 50 percent when heated to about 65 degrees Celsius.

6. (currently amended) A vascular occlusion coil deployment system as defined in claim 1, wherein said hot melt adhesive of the heat responsive coupling member is bonded to the embolic coil and wherein the yield strength is reduced at least 50 percent when heated to about 65 degrees Celsius.

7. (cancelled)

8. (cancelled)

9. (cancelled)

10. (currently amended) A vascular occlusion coil deployment system for use in placing a coil at a preselected site within a vessel comprising:

an elongated flexible positioning member having a lumen extending therethrough and having proximal and distal ends;

an embolic coil;

an elongated flexible delivery member having a lumen extending therethrough and being positioned within the lumen of the positioning member and having proximal and distal ends;

a heating element mounted on the distal end of the delivery member;

a non-optical energy transmission conductor extending through the lumen of the delivery member and extending from the proximal end to the distal end of the delivery member, said energy transmission conductor being coupled to said heating element; and

a non-metallic heat responsive coupling member coupled to the heating element and coupled to the embolic coil by a hot melt adhesive bond, said heat responsive coupling member comprising a biocompatible hot melt adhesive that exhibits the characteristic of, upon being heated, releasing the embolic coil at the preselected site.

11. (original) A vascular occlusion coil deployment system as defined in claim 10, wherein said heating element is an electrically heated coil.

12. (currently amended) A vascular occlusion coil deployment system as defined in claim 11, wherein the yield strength of

said adhesive of the heat responsive coupling member is reduced at least 50 percent when heated to about 65 degrees Celsius.

13. (cancelled)

14. (new) A vascular occlusion coil deployment system as defined in claim 10, wherein the hot melt adhesive, upon being heated, softens so that it may be stretched to release the hot melt adhesive bond.

15. (new) A vascular occlusion coil deployment system as defined in claim 14, wherein said hot melt adhesive has a lower yield strength, upon being heated, than prior to being heated.

16. (new) A vascular occlusion coil deployment system as defined in claim 14, wherein said hot melt adhesive softens so that it may be stretched upon being heated to at least about 63 degrees Celsius.

17. (new) A vascular occlusion coil deployment system as defined in claim 10, wherein said hot melt adhesive bond of the heat responsive coupling member, upon being heated, breaks when said delivery member is retracted with respect to said positioning member to release said embolic coil.

18. (new) A vascular occlusion coil deployment system as defined in claim 17, wherein the release of said embolic coil comprises disengaging said heating element from said embolic coil by breaking said hot melt adhesive bond.